Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus for searching corresponding points between an input image and a reference image which is an object of comparison with the input image, said apparatus comprising:

a similarity degree image production unit which produces a plurality of similarity degree images each having a plurality of similarity degrees between the input image and the reference image as a plurality of pixel values; and

a corresponding point detection unit which detects corresponding points between the input image and the reference image based on the similarity degree images produced by said similarity degree image production unit,

wherein said similarity degree image production unit includes:

a reference partial image production unit which divides the reference image into a plurality of blocks as a plurality of reference partial images;

an input partial image production unit which divides the input image into a plurality of blocks as a plurality of input partial images; and

a similarity degree calculation unit which calculates the similarity degrees between the input partial images and the reference partial images, wherein the similarity degree images include a first similarity degree image and a second similarity degree image, and

wherein said corresponding point detection unit includes:

an accumulation-addition unit which sequentially accumulation-adds a first pixel value of a first pixel selected from a group of pixels including one pixel and a plurality of pixels around the one pixel in the first similarity degree image, to a second pixel value of a second pixel in the second similarity degree image, the one pixel having a coordinate in a block defined by each of the similarity degree images, the coordinate corresponding to that of the second pixel; and

a corresponding point specific unit which specifies the corresponding points based on the similarity degree images which have been accumulatively added by said

~~accumulation-addition~~ accumulation-addition unit, wherein said accumulation-addition unit adds a pixel value of a pixel having a maximum pixel value from among the group of pixels, as the first pixel value.

Claim 2. (Canceled).

3. (Previously Presented) The apparatus according to claim 1, wherein said input partial image production unit produces the plurality of input partial images each of whose size is greater than a size of each of the reference partial images and each of which is obtained by dividing said input image into the plurality of blocks whose parts are mutually overlapped.

4. (Previously Presented) The apparatus according to claim 1, wherein said similarity degree calculation unit calculates a Euclid distance or a normalized correlation coefficient between the input partial images and the reference partial images as the similarity degrees.

5. (Canceled).

6. (Previously Presented) The apparatus according to claim 1, wherein said accumulation-addition unit recursively repeats accumulation-addition for the plurality of similarity degree images in a horizontal direction, a direction opposite to the horizontal direction, a vertical direction, and a direction opposite to the vertical direction.

7. (Previously Presented) The apparatus according to claim 1, wherein said accumulation-addition unit recursively repeats accumulation-addition for the plurality of similarity degree images in a horizontal direction, a direction opposite to the horizontal direction, a vertical direction, and a direction opposite to the vertical direction until a width of variance of position of a maximum value in each of the similarity degree images becomes smaller than a predetermined value.

8. (Previously Presented) The apparatus according to claim 1, wherein said corresponding point specific unit specifies a pixel position of a pixel having a maximum pixel

value in each of the similarity degree images which have been accumulatively added by said accumulation-addition unit, as each corresponding point.

9. (Canceled)

10. (Currently Amended) A method of searching corresponding points between an input image and a reference image which is an object of comparison with the input image, the method comprising:

producing a plurality of similarity degree images each having a plurality of similarity degrees between the input image and the reference image as a plurality of pixel values; and

detecting corresponding points between the input image and the reference image based on the plurality of similarity degree images produced,

wherein the producing includes,

dividing the reference image into a plurality of blocks as a plurality of reference partial images;

dividing the input image into a plurality of blocks as a plurality of input partial images; and

calculating the similarity degree between the input partial images and the reference partial images, wherein the plurality of similarity degree images include a first similarity degree image and a second similarity degree image, and

wherein the detecting includes:

sequentially accumulation-adding a first pixel value of a first pixel selected from a group of pixels including one pixel and a plurality of pixels around the one pixel in the first similarity degree image, to a second pixel value of a second pixel in the second similarity degree image, the one pixel having a coordinate in a block defined by each of the similarity degree images, the coordinate corresponding to that of the second pixel; and

specifying the corresponding points based on the similarity degree images which have been accumulatively added,

wherein the accumulation-adding includes adding a pixel value of a pixel having a maximum pixel value from the group of pixels, as the first pixel value.

Claim 11. (Canceled).

12. (Previously Presented) The method according to claim 10, wherein the producing includes generating the plurality of input partial images each of whose size is greater than a size of each of the reference partial images and each of which is obtained by dividing said input image into the plurality of blocks whose parts are mutually overlapped.

13. (Previously Presented) The method according to claim 10, wherein the calculating includes calculating a Euclid distance or a normalized correlation coefficient between the input partial images and the reference partial images as the similarity degrees.

14. (Canceled).

15. (Previously Presented) The method according to claim 10, wherein the accumulation addition is recursively repeated for the plurality of similarity degree images in a horizontal direction, a direction opposite to the horizontal direction, a vertical direction, and a direction opposite to the vertical direction.

16. (Previously Presented) The method according to claim 10, wherein the accumulation addition is recursively repeated for the plurality of similarity degree images in a horizontal direction, a direction opposite to the horizontal direction, a vertical direction, and a direction opposite to the vertical direction until a width of variance of position of a maximum value in each of similarity degree images becomes smaller than a predetermined value.

17. (Previously Presented) The method according to claim 10, wherein the specifying includes specifying a pixel position of a pixel having a maximum pixel value in each of the similarity degree images which have been accumulatively added, as each corresponding point.

18. (Canceled).

19. (Currently Amended) A computer program containing instructions which when executed on a computer realizes a method of searching corresponding points between an input image and a reference image which is an object of comparison with the input image, the method comprising:

producing a plurality of similarity degree images each having a plurality of similarity degrees between the input image and the reference image as a plurality of pixel values; and

detecting corresponding points between the input image and the reference image based on the plurality of similarity degree images produced,

wherein the producing includes,

dividing the reference image into a plurality of blocks as a plurality of reference partial images;

dividing the input image into a plurality of blocks as a plurality of input partial images; and

calculating the similarity degree between the input partial images and the reference partial images, wherein the plurality of similarity degree images include a first similarity degree image and a second similarity degree image, and

wherein the detecting includes:

sequentially accumulation-adding a first pixel value of a first pixel selected from a group of pixels including one pixel and a plurality of pixels around the one pixel in the first similarity degree image, to a second pixel value of a second pixel in the second similarity degree image, the one pixel having a coordinate in a block defined by each of the similarity degree images, the coordinate corresponding to that of the second pixel; and

specifying the corresponding points based on the similarity degree images which have been accumulatively added,

wherein the accumulation-adding includes adding a pixel value of a pixel having a maximum pixel value from the group of pixels, as the first pixel value.

Claim 20 (Canceled).

21. (Previously Presented) The computer program according to claim 19, wherein the producing includes generating the plurality of input partial images each of whose size is greater than a size of each of the reference partial images and each of which is obtained by dividing said input image into the plurality of blocks whose parts are mutually overlapped.

22. (Previously Presented) The computer program according to claim 19, wherein the calculating includes calculating a Euclid distance or a normalized correlation

coefficient between the input partial images and the reference partial ~~image~~ images as the similarity degrees.

23. (Canceled).

24. (Previously Presented) The computer program according to claim 19, wherein the accumulation addition is recursively repeated for the plurality of similarity degree images in a horizontal direction, a direction opposite to the horizontal direction, a vertical direction, and a direction opposite to the vertical direction.

25. (Previously Presented) The computer program according to claim 19, wherein the accumulation addition is recursively repeated for the plurality of similarity degree images in a horizontal direction, a direction opposite to the horizontal direction, a vertical direction, and a direction opposite to the vertical direction until a width of variance of position of a maximum value in each of similarity degree images becomes smaller than a predetermined value.

26. (Previously Presented) The computer program according to claim 19, wherein the specifying includes specifying a pixel position of a pixel having a maximum pixel value in each of the similarity degree images which have been accumulatively added, as each corresponding point.

27. (Canceled)

28. (Previously Presented) The apparatus according to claim 1, wherein the accumulation-addition unit sequentially executes the accumulation addition for all the similarity degree images in at least one direction.

29. (Previously Presented) The method according to claim 10, wherein the accumulation addition includes sequentially executing the accumulation addition for all the similarity degree images in at least one direction.

30. (Previously Presented) The computer program according to claim 19, wherein the accumulation addition includes sequentially executing the accumulation addition for all the similarity degree images in at least one direction.

31. (Previously Presented) The apparatus according to claim 1, wherein the accumulation-addition unit is configured to calculate a maximum value filter including a plurality of maximum pixel values each being a maximum of pixel values of a group of pixels in the similarity degree images, and to add one of the maximum pixel values from the maximum value filter as the first pixel value to the second pixel value.

32. (Previously Presented) The method according to claim 10, wherein the accumulation addition includes:

calculating a maximum value filter including a plurality of maximum pixel values each being a maximum of pixel values of a group of pixels in the similarity degree images; and

adding one of the maximum pixel values from the maximum value filter as the first pixel value to the second pixel value.

33. (Previously Presented) The computer program according to claim 19, wherein the accumulation addition includes:

calculating a maximum value filter including a plurality of maximum pixel values each being a maximum of pixel values of a group of pixels in the similarity degree images; and

adding one of the maximum pixel values from the maximum value filter as the first pixel value to the second pixel value.